AMENDMENTS TO THE CLAIMS

1. (Currently Amended) The method ~~to compress~~ of compressing and ~~process~~ processing for multi-screens a plurality of digital video signals on respective channels by multi-thread scaling, which uses a single integrated analog/digital converter for each channel ~~for compression/multi-screen process~~, comprising:

(a) ~~a step to scale the resolutions of~~ scaling digital video signals outputted from analog/digital converters to have a first resolution for compression, or to have a second resolution for a multi-screen process depending on the even/odd fields of the ~~inputted~~ input video signals; and

(b) ~~a step to store and compress~~ storing and compressing the scaled digital video signals of the first resolution, or storing and ~~or~~ processing for multi-screens the scaled digital video signals of the second resolution ~~according to the resolutions scaled in the said step (a)~~.

2. (Currently Amended) The method of ~~for digital video signal compression/multi-screen process by multi-thread scaling according to claim~~ Claim 1, wherein:

at ~~the~~ said step (a), the video signals are scaled to have a resolution for compression in the even field.

3. (Currently Amended) The method ~~for digital video signal compression/multi-screen process by multi-thread scaling according to~~ of ~~claim~~ Claim 2, wherein:

the first resolution for compression is 352x240.

4. (Currently Amended) The method of Claim 2 ~~for digital signal compression/multi-screen process by multi-thread scaling according to claim 1~~, wherein:

at said step (a), the video signals are scaled to have the second resolution ~~resolutions~~ for a multi-screen process in the odd field.

5. (Currently Amended) The method ~~for digital video signal compression/multi-screen process by multi-thread scaling according to~~ of ~~claim~~ Claim 4, wherein:

the multi-screen process is the process for one of 4 screens, 9 screens ~~or~~ and ~~for~~ 16 screens.

6. (Currently Amended) The method ~~for digital video signal compression/multi-screen process by multi-thread scaling according to~~ of ~~claim~~ Claim 5, wherein:

the second resolution for 4 screens is 360x240;

the second resolution for 9 screens is 240x160; and

the second resolution for 16 screens is 180x120.

7. (Currently Amended) ~~The~~ A device for compression and multi-screen processing of digital video signals by multi-thread scaling comprising:

multi-channel analog/digital converters for generating ~~which generate~~ even/odd field indicators based on input ~~depending on the fields of the inputted multi-channel~~ video signals and for converting and scaling the input video signals to have a first resolution for compression or to have a second resolution ~~and scale the resolution of each channel's video signals for compression or~~ for a multi-screen process ~~while converting each channel's video signals into digital signals according to~~ based on the even/odd ~~fields~~ field indicators;

a compression FIFO for storing ~~which stores, for compression, the~~ video signals scaled to have the first resolution outputted from the multi-channel ~~each channel's~~

analog/digital ~~converter~~ converters ~~based upon the even/odd field indicator of the said analog/digital converter~~;

a multi-screen FIFO for storing ~~which stores, for multi-screen process, the~~ video signals scaled to have the second resolution outputted from the multi-channel ~~each channel's~~ analog/digital ~~converter~~ converters ~~based upon the even/odd field indicator of the said analog/digital converter~~;

a CPU for initializing the multi-channel ~~which initializes each channel's~~ analog/digital ~~converter~~ converters, the compression FIFO, and the multi-screen FIFO~~,~~ ~~and controls each channel's analog/digital converter so that the converted digital video signals may be scaled into various resolutions depending on the fields of the inputted multi-screen video signals~~; and

a video processor for transmitting ~~which transmits the video signals which have been inputted to the~~ an output of ~~said~~ the multi-screen FIFO to the video memory according to ~~the rules~~ a pre-determined rule for the multi-screen process.

8. (Currently Amended) The device ~~for compression and multi-screen process of digital video signals by multi-thread scaling according to~~ of ~~claim~~ Claim 7, wherein ~~the analog/digital converters;~~

~~generate even field/odd field indicators, after being initialized by the said CPU;~~

~~store the digital video signals scaled to have~~ the first resolution is ~~of~~ 352x240 ~~in the compression FIFO~~, if the field indicator is even; and

~~store the digital video signals scaled to have~~ the second resolution ~~resolutions~~ is one of 180x120 for 16 screens, 240x160 for 9 screens, and ~~or~~ 360x240 for 4 screens ~~in the multi-screen FIFO~~, if the field indicator is odd.

9. (Currently Amended) The device ~~for compression and multi-screen process of digital video signals by multi-thread scaling according to claim~~ of Claim 7, wherein:

~~the~~ said CPU is programmed to control the operation registers of the analog/digital converters so that the video signals may be scaled to have the ~~resolutions~~ resolution of one of 180x120 for 16 screens, 240x160 for 9 screens, ~~or~~ and 360x240 for 4 screens in the event that the field indicator is odd.

10. (New) A method of compressing and processing digital video signals by multi-thread scaling comprising steps of:

receiving input video signals;

converting the input video signals to digital signals respectively and outputting an indicator signal indicating whether the field corresponding to the input video signals is an first type field or an second type field;

scaling the digital signals to have a first resolution for compression in the first type field and to have a second resolution for multi-screen processing in the second type field;

storing the scaled digital signals for compression in at least one compression FIFO, and the scaled digital signals for multi-screen processing in at least one multi-screen FIFO;

compressing an output of the compression FIFO; and

processing an output of the multi-screen FIFO according to a pre-determined rule for the multi-screen processing.

11. (New) The method of Claim 10, wherein the first type field is an even field, and the second type field is an odd field.

12. (New) The method of Claim 10, wherein the first type field is an odd field, and the second type field is an even field.

13. (New) The method of Claim 10, wherein the first resolution is 352x240; and the second resolution is one of 360x240, 240x160, and 180x120.

14. (New) The method of compressing and processing for multi-screens a digital video signals on a channel by multi-thread scaling, which uses a single integrated analog/digital converter, comprising:

(a) scaling digital video signals outputted from the analog/digital converter to have a first resolution for compression, or to have a second resolution for a multi-screen process depending on the even/odd fields of the input video signal; and

(b) storing and compressing the scaled digital video signal of the first resolution, or storing and processing for multi-screens the scaled digital video signal of the second resolution.